

Report of the NOAA Panel on Contingent Valuation

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Contingent Valuation Panel to consider this question and make recommendations to it.

This report is the product of the Panel's deliberations and is organized in the following way. Following this introduction, the drawbacks to the CV technique are discussed in Section II. Section III discusses several key issues concerning the design of CV surveys, including use of the referendum format to elicit individual values, ways of addressing the so-called "embedding" problem, and the evaluation of damages that last for some period but not forever. Section IV presents guidelines to which the Panel believes any CV study should adhere if the study is to produce information useful in natural resource damage assessment. (These are elaborated upon in an Appendix.) In Section V a research agenda is described; it is the Panel's belief that future applications of the CV technique may be less time-consuming and contentious if the research described in the agenda is carried out. Section VI presents the Panel's conclusions.

II. CRITICISMS OF THE CONTINGENT VALUATION METHOD

The contingent valuation method has been criticized for many reasons and the Panel believes that a number of these criticisms are particularly compelling. Before identifying and discussing these problems, however, it is worth pointing out that they all take on added importance in light of the impossibility of validating externally the results of CV studies. It should be

forcefully of the budget constraints under which all must operate; (iv) it is difficult in CV surveys to provide adequate information to respondents about the policy or program for which values are being elicited and to be sure they have absorbed and accepted this information as the basis for their responses; (v) in generating aggregate estimates using the CV technique, it is sometimes difficult determining the "extent of the market;" and (vi) respondents in CV surveys may actually be expressing feelings about public spiritedness or the "warm glow" of giving, rather than actual willingness to pay for the program in question. We discuss each of these briefly.

Inconsistency with Rational Choice

Some of the empirical results produced by CV studies have been alleged to be inconsistent with the assumptions of rational choice. This raises two questions: What requirements are imposed by rationality? Why are they relevant to the evaluation of the reliability of the CV method?

Rationality in its weakest form requires certain kinds of consistency among choices made by individuals. For instance, if an individual chooses some purchases at a given set of prices and income, then if some prices fall and there are no other changes, the goods that the individual would now buy would make him or her better off. Similarly, we would expect an individual's preferences over public goods (i.e., bridges, highways, air quality) to reflect the same kind of consistency.

unrealistically large.

Absence of a Meaningful Budget Constraint

Even if respondents in CV surveys take seriously the hypothetical referendum (or other type of) questions being asked them, they may respond without thinking carefully about how much disposable income they have available to allocate to all causes, public and private (see Kemp and Maxwell (1992), for instance). Specifically, respondents might reveal a willingness to pay of, say, \$100 for a project that would reduce the risk of an oil spill; but if asked what current or planned expenditures they would forgo to pay for the program, they might instead re-evaluate their responses and revise them downward. This is similar to the problem identified immediately above where individuals fail to think of the possible multiplicity of environmental projects or policies they might be asked to support. To date, relatively few CV surveys have reminded respondents convincingly of the very real economic constraints within which spending decisions must be made.

Information Provision and Acceptance

If CV surveys are to elicit useful information about willingness to pay, respondents must understand exactly what it is they are being asked to value (or vote upon) and must accept the scenario in formulating their responses. Frequently, CV surveys have provided only sketchy details about the project(s)

a bald list of guidelines here. They are repeated together with further explanatory comments in the Appendix to this Report.

GENERAL GUIDELINES

- ☐ Sample Type and Size: Probability sampling is essential for a survey used for damage assessment.¹ The choice of sample specific design and size is a difficult, technical question that requires the guidance of a professional sampling statistician.
- ☐ Minimize Nonresponses: High nonresponse rates would make the survey results unreliable.
- ☐ Personal Interview: The Panel believes it unlikely that reliable estimates of values could be elicited with mail surveys. Face-to-face interviews are usually preferable, although telephone interviews have some advantages in terms of cost and centralized supervision.
- ☐ Pretesting for Interviewer Effects: An important respect in

¹ This need not preclude use of less adequate samples, including quota or even convenience samples, for preliminary testing of specific experimental variations, so long as order of magnitude differences rather than univariate results are the focus. Even then, obvious sources of bias should be avoided (e.g., college students are probably too different in age and education from the heterogeneous adult population to provide a trustworthy basis for wider generalization).